CLAIMS:

Claims 1-186. (Canceled)

187. (Currently Amended) A method for promoting wound repair and regeneration in a subject in need of such treatment comprising administering to the subject a ~~wound-repairing effective amount of a~~ composition ~~which comprises~~ containing a wound repairing and regenerating amount of a wound repairing and regenerating polypeptide consisting essentially of thymosin beta (TB)4 or a TB4 isoform that comprises LKKTET (SEQ ID NO:1),

wherein said ~~composition~~ polypeptide has actin-sequestering or actin-binding activity, stimulates epithelial migration, stimulates wound healing, and promotes wound repair.

188. (Currently Amended) The method of claim 187, wherein said wound-repairing and regenerating polypeptide is TB4.

189. (Withdrawn) The method of claim 187, wherein said TB4 isoform is at least 70% homologous to SEQ ID NO:2.

190. (Withdrawn) The method of claim 187, wherein said TB4 isoform is selected from the group consisting of TB4ala, TB9, TB10, TB11, TB12, TB13, and TB14.

191. (Previously Presented) The method of claim 187, wherein said polypeptide is recombinant or synthetic.

192. (Previously Presented) The method of claim 187, wherein said administering to said subject is by a route selected from the group consisting of injection, local injection, catheter, surgically, topically, aerosol, inhalation, systemically, orally, intranasally, intravenously, intraperitoneally, intramuscularly, intracavity administration and transdermally.

193. (Previously Presented) The method of claim 187, wherein said composition further comprises a carrier for systemic administration.

194. (Currently Amended) The method of claim **[[**187**]]**193, wherein said carrier is selected from the group consisting of saline, sterile water, a sodium chloride solution, lactated Ringer's intravenous, Ringer's dextrose, dextrose and sodium chloride, polyethylene glycol, vegetable oil, hydrogenated naphthalene, lactide polymer, lactide/glycolide copolymer, polyoxethylene-polyoxypropylene, polyoxyethylene-9-lauryl ether, glycocholate and deoxycholate, phosphatidyl, phosphatidylglycerol, phosphatidylcholine, phosphatidylserine, phosphatidylethanolamine, sphingolipids, cerebrosides, gangliosides; dipalmitoylphosphatidylcholine, distearoylphosphatidyl-choline, injectable organic ester, ethyl oleate, an alcoholic/aqueous solution, an alcoholic/aqueous emulsion, an alcoholic/aqueous suspension.

195. (Previously Presented) The method of claim 187, wherein said composition further comprises a carrier for topical administration.

196. (Previously Presented) The method of claim 195, wherein said carrier is selected from the group consisting of a gel, a cream, a paste, a lotion, a spray, a suspension, a dispersion, a salve, a hydrogel and an ointment.

197. (Withdrawn) The method of claim 187, wherein said composition further comprises a polypeptide selected from the group consisting of gelsolin, vitamin D binding protein, profilin, cofilin, depactin, DNaseI, vilin, fragmin, severin, capping protein, beta-actinin, and acumentin.

198. (Previously Presented) The method of claim 187, wherein said composition further comprises an agent that stimulates the production of TB4.

199. (Previously Presented) The method of claim 198, wherein said agent that stimulates the production of TB4 is transforming growth factor beta (TGF-b).

200. (Previously Presented) The method of claim 187, which further comprises contacting the site of the wound with an agent which promotes wound healing.

201. (Withdrawn) The method of claim 200, wherein said agent is selected from the group consisting of IGF, IGF-I, IGF-2, IL-I, PDGF, FGF, KGF, VEGF, prothymosin α, thymosin α1 and combinations thereof.

202. (Previously Presented) The method of claim 187, wherein said wound is in a tissue selected from the group consisting of a skin tissue, a dermal tissue, an epidermal tissue, an eye tissue, a cornea, a retina, a uro-genital tissue, a gastro-intestinal tissue, a cardiovascular tissue, a muscle tissue, a connective tissue, a neural tissue, a bone tissue, a cartilage tissue, a breast tissue, a central nervous system tissue, a pancreatic tissue, a liver tissue, a reticulo-endothelial system tissue and an endometrial tissue.

203. (Previously Presented) The method of claim 187, wherein said wound is present in a disease or condition selected from the group consisting of an arthritis, osteoporosis, a musculo-skeletal disorder, a burn, an ulcer or ulceration, a pressure ulcer, a diabetic ulcer, a skin lesion, a skin disease, a neurological disease, a neurodegenerative disease, a nerve disease, a bone disease, a heart disease, an eye disease, corneal damage, retinal damage, skin damage, a cardiovascular disease, ischemia, atherosclerosis, a fibrotic disorder, a sclerotic disorder, a cancer and a cell proliferative disorder.

204. (Currently Amended) A method for promoting wound repair and regeneration in a subject in need of such treatment comprising administering to the subject a ~~wound-repairing effective amount of a~~ composition ~~which comprises~~ containing a wound repairing and regenerating effective amount of a wound repairing and regenerating polypeptide consisting essentially of thymosin beta (TB)4, a TB4 isoform

that comprises LKKTET (SEQ ID NO:1) or a TB4 isoform that comprises LKKTET (SEQ ID NO:1) in which a hydrophobic amino acid residue is replaced with another hydrophobic amino acid residue or a polar amino acid residue is replaced with another polar amino acid residue, or both,

wherein said ~~TB4 or TB4 isoform~~ polypeptide has actin-sequestering or actin-binding activity, stimulates epithelial migration, stimulates wound healing, and promotes wound repair.

205. (Currently Amended) The method of claim 204, wherein said ~~wound-repairing~~ polypeptide is TB4.

206. (Withdrawn) The method of claim 204, wherein said TB4 isoform is at least 70% homologous to SEQ ID NO:2.

207. (Withdrawn) The method of claim 204, wherein said TB4 isoform is selected from the group consisting of TB4ala, TB9, TB10, TB11, TB12, TB13, and TB14.

208. (Previously Presented) The method of claim 204, wherein said polypeptide is recombinant or synthetic.

209. (Previously Presented) The method of claim 204, wherein said administering to said subject is by a route selected from the group consisting of injection, local injection, catheter, surgically, topically, aerosol, inhalation, systemically, orally, intranasally, intravenously, intraperitoneally, intramuscularly, intracavity administration and transdermally.

210. (Previously Presented) The method of claim 204, wherein said composition further comprises a carrier for systemic administration.

211. (Previously Presented) The method of claim 210, wherein said carrier is selected from the group consisting of saline, sterile water, a sodium chloride solution, lactated

Ringer's intravenous, Ringer's dextrose, dextrose and sodium chloride, polyethylene glycol, vegetable oil, hydrogenated naphthalene, lactide polymer, lactide/glycolide copolymer, polyoxethylene-polyoxypropylene, polyoxyethylene-9-lauryl ether, glycocholate and deoxycholate, phosphatidyl, phosphatidylglycerol, phosphatidylcholine, phosphatidylserine, phosphatidylethanolamine, sphingolipids, cerebrosides, gangliosides; dipalmitoylphosphatidylcholine, distearoylphosphatidyl-choline, injectable organic ester, ethyl oleate, an alcoholic/aqueous solution, an alcoholic/aqueous emulsion, an alcoholic/aqueous suspension.

212. (Previously Presented) The method of claim 204, wherein said composition further comprises a carrier for topical administration.

213. (Previously Presented) The method of claim 212, wherein said carrier is selected from the group consisting of a gel, a cream, a paste, a lotion, a spray, a suspension, a dispersion, a salve, a hydrogel and an ointment.

214. (Withdrawn) The method of claim 204, wherein said composition further comprises a polypeptide selected from the group consisting of gelsolin, vitamin D binding protein, profilin, cofilin, depactin, DNaseI, vilin, fragmin, severin, capping protein, beta-actinin, and acumentin.

215. (Previously Presented) The method of claim 204, wherein said composition further comprises an agent that stimulates the production of TB4.

216. (Previously Presented) The method of claim 215, wherein said agent that stimulates the production of TB4 is TGF-b.

217. (Previously Presented) The method of claim 204, which further comprises contacting the site of the wound with an agent which promotes wound healing.

218. (Withdrawn) The method of claim 217, wherein said agent is selected from the group consisting of IGF, IGF-I, IGF-2, IL-I, PDGF, FGF, KGF, VEGF, prothymosin α, thymosin α1 and combinations thereof.

219. (Previously Presented) The method of claim 204, wherein said wound is in a tissue selected from the group consisting of a skin tissue, a dermal tissue, an epidermal tissue, an eye tissue, a cornea, a retina, a uro-genital tissue, a gastro-intestinal tissue, a cardiovascular tissue, a muscle tissue, a connective tissue, a neural tissue, a bone tissue, a cartilage tissue, a breast tissue, a central nervous system tissue, a pancreatic tissue, a liver tissue, a reticulo-endothelial system tissue and an endometrial tissue.

220. (Previously Presented) The method of claim 219, wherein said tissue is selected from the group consisting of epidermal tissue, eye tissue, uro-genital tissue, gastro-intestinal tissue, cardiovascular tissue, muscle tissue, connective tissue, and neural tissue.

221. (Previously Presented) The method of claim 219, wherein said tissue is skin tissue.

222. (Withdrawn) The method of claim 219, wherein said tissue is eye tissue.

223. (Previously Presented) The method of claim 204, wherein said wound is present in a disease or condition selected from the group consisting of an arthritis, osteoporosis, a musculo-skeletal disorder, a burn, an ulcer or ulceration, a pressure ulcer, a diabetic ulcer, a skin lesion, a skin disease, a neurological disease, a neurodegenerative disease, a nerve disease, a bone disease, a heart disease, an eye disease, corneal damage, retinal damage, skin damage, a cardiovascular disease, ischemia, atherosclerosis, a fibrotic disorder, a sclerotic disorder, a cancer and a cell proliferative disorder.

224-236. (Canceled)